"HIDUMINIUM" R.R.77

Physical Properties

SPECIFIC GRAVITY 2.80

SPECIFIC WEIGHT lbs. per sq. inch 0.101

CO-EFFICIENT OF THERMAL EXPANSION ... ... 20 - 100°C. ... 20×10^{-6}
20 - 200°C. ... 22×10^{-6} 20 - 300°C. ... 23×10^{-6} 20 - 400°C. ... 25×10^{-6}

ELECTRICAL CONDUCTIVITY

Solution treated and artificially aged. Reciprocal ohms per Cm^3 200,100

Solution treated and naturally aged. " " " " 185,800

Annealed ... ... " " " " 261,000

THERMAL CONDUCTIVITY (calculated)

Solution treated and artificially aged. In C.G.S. units 0.340

as a percentage of copper 37

Solution treated and naturally aged. In C.G.S. units 0.320

as a percentage of copper 34

Annealed ... ... In C.G.S. units 0.421

as a percentage of copper 44.5

YOUNG'S MODULUS (E.) lbs. per sq. inch ... ... 10.0×10^6

FATIGUE Endurance limit at 20×10^6 cycles tons/sq. in. ... ... ±12.5 - 13.0

General Mechanical Properties

HEAT TREATMENT	IN TENSION			IN COMPRESSION		BRINELL HARDNESS NUMBER
	Proof stress (0.1%) tons/sq. in.	Ultimate stress tons/sq. in.	Elongation on 2" G.L.%	Proof stress (0.1%) tons/sq. in.	Proof stress (0.5%) tons/sq. in.	
Solution treated and artificially aged	28 - 33	33 - 38	16 - 10	27 - 30	32 - 36	160 - 180
Solution treated and naturally aged	18 - 21	29 - 32	21 - 16	17 - 21	22 - 25	130 - 140
Annealed	4 - 8	12 - 14	20 - 14	4 - 8	7 - 9	45 - 65

Sheet and strip supplied by Reynolds Rolling Mills Ltd.
Extruded sections and drawn tubes supplied by
The Reynolds Tube Co., Ltd. of Birmingham

HIGH DUTY ALLOYS LTD., SLOUGH

T.G.S.